Workshop Summary—Key Points

A public workshop was held on October 22–23, 2002, to solicit stakeholders views on key issues that may have policy implications on licensing non-light water reactors. These issues are listed below along with the key points made by the workshop participants.

Expectation of Enhanced Safety

- Do not require enhanced safety.
- Follow ALWR certification model—applicant proposes enhanced safety features, staff reviews and supplements, if necessary, on a design-specific basis.
- Focus on developing the right metrics and criteria for non-LWRs.
- Reasonable to require additional oversight/testing on key areas where experience is less or uncertainty high.

Defense-in-Depth (DID)

- NRC should define DID.
- DID should include programmatic and process elements.
- Development of DID description should follow a process that includes stakeholder input.

Use of International Codes and Standards

- NRC should review codes and standards submitted in an application.
- NRC should utilize the experience of other regulatory bodies to facilitate the review of international codes and standards.
- NRC should be proactive in selected areas by participating in and endorsing international codes and standards that could fill a critical gap in the infrastructure for non-LWRs.
- NRC needs to be cognizant of State laws that affect codes and standards use.

Event Selection

- Define event categories probabilistically.
- Use PRA to identify events and select certain limiting events as design basis, considering uncertainties.
- Use risk to classify systems, structures, and components as safety related and replace the single-failure criterion with a reliability criterion.
- Develop a PRA standard to address how to perform a PRA for non-LWRs.

Source Term

- Severe core damage is the wrong metric for HTGR.
- Current regulations allow use of scenario-specific source terms.
- Develop an equivalent to the NUREG-1465 source term for HTGRs.

Containment vs. Confinement

- Focus on functional requirements rather than a prescriptive requirement that imposes a design solution.
- NEI's "Risk-Informed, Performance-Based White Paper" provides some functional requirements.
- Designs with limited operating experience should have containment.
- Requiring containment for GT-MHR may be adverse to safety.

Emergency Preparedness

- Since all planned Early Site Permits are for existing sites, this issue is not one that needs resolution in the near term.
- 10 CFR 50.47 includes provision for determining the EPZ for HTGRs on a case-by-case basis.